TREASURY METHODS OF FINANCING THE WAR IN RELATION TO INFLATION

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I

Financing the War

THE Treasury's war problem was to meet the financial requirements of the Governments of the United States and the Allies promptly and without stint, and to meet them so far as possible from the saved incomes of the people, avoiding avoidable inflation. These objectives must be pursued in such ways as would not interfere with, but on the contrary facilitate, the mobilization of the nation for war purposes and the production and transportation of munitions and supplies. It was necessary that the Treasury should reach its determinations without the possibility of knowing the duration of the war or, consequently, the magnitude of the ultimate financial effort which the country would be called upon to make. The Allies had about reached the end of their tether because of their dependence upon imports for an important part of their munitions and supplies. They had nearly reached the limit of their ability to finance these through private channels in America and the neutral world. The Central Empires, more self-contained in fact and aided by the blockades maintained by the Allies, appeared to be less subject to the risk of economic breakdown. The United States, the last great nation to enter the war, was also the last great reservoir of available wealth which could be tapped in the Allied cause. If America failed to meet the financial and economic demands upon her, the war was lost.

For about a year after our declaration of war our loans to the Allies were our principal effective contribution to winning the war which they were fighting. During the first six months the loans we made to Russia and the knowledge of our willingness to make further loans kept Russia in the war and held the eastern front. The loan we made to Italy in the fall of 1917,

when the great offensive broke on Italy, gave the Italian people courage and enabled Italy to replace the lost munitions and supplies. In the spring of 1918 our silver helped hold India effective for the Allies.[1] In the summer of 1918 American credits sustained the French when Paris itself was under gunfire.

As our military effort grew, the demands of our own army and navy in large measure displaced those of the Allies in respect to American production and transportation, and the burden which the Treasury had to bear came increasingly to represent the expenditures of our own Government and decreasingly those of the Governments of the Allies. The rapidity with which our financial and economic resources were mobilized made possible the termination of the war a year sooner than had been hoped by the most optimistic. Our military and economic effort was, I believe, planned to reach the peak in the spring or summer of 1919. Though hostilities ceased on November 11, 1918, the Treasury was called upon to meet expenditures to the average amount of about $2,000,000,000 a month in November and December, 1918, and January, 1919—the full amount of the First Liberty Loan each month. The peak of the war debt was not reached until August 31, 1919 (when the floating debt amounted to about $4,000,000,000, and the total gross debt amounted in round figures to $26,596,000,000), and it was not until January, 1920, that the Treasury was able to reduce the floating debt to manageable amount and maturities.

In the period, lacking six days of three years, from the declaration of war to March 31, 1920, on the basis of Treasury daily statements, excluding transactions in the principal of the public debt, the Government's current expenditures amounted in round figures to $37,455,000,000 and its current receipts to $14,198,000,000, the difference being covered by a net increase in the public debt of $23,257,000,000. On March 31, 1920, the

[1] "The timely help thus rendered by the United States Government in placing at India's disposal a supply of silver which represents considerably more than the world's annual mine production since 1914, enabled the Government of India to tide over a very serious currency crisis and to maintain the convertibility of the note issue." *British White Paper*, Cmd. 527, 1920, page 11. Report of the Committee appointed by the Secretary of State for India to enquire into Indian Exchange and Currency.

gross debt had been decreased by about $1,900,000,000 to $24,698,000,000 from taxes and salvage, including in the latter item the reduction of the net balance in the general fund made possible by the reduced ordinary and public debt disbursements. Though the current months of April and May will show an important increase in the public debt, in large measure due to the heavy burdens thrown upon the Treasury in connection with the return of the railroads to private control, the Treasury is hopeful that the ground lost in the first two months of this last quarter of the fiscal year will be regained in June when another installment of income and profits taxes is payable, and that the end of the fiscal year on June 30, 1920, will show a reduction in the gross debt of somewhere near $1,750,000,000 from the peak in August, 1919, and that the operations of the whole fiscal year will show a decrease in the gross debt of some $600,000,000 which is more than accounted for, however, by the decreased balance in the general fund. This means that for the fiscal year beginning seven months after the cessation of hostilities, three days after the signing of a peace treaty which is still unratified by America, and two months before the peak of the war debt was reached, the United States should balance its budget within a couple of hundred million dollars—current receipts against current expenditures.

The total disbursements of $37,455,000,000 include expenditures for loans to the Allies and obligations taken from the Allies and other Governments upon the sale of goods on credit in the aggregate amount of, say, $10,000,000,000, and in addition several billion dollars' worth of more or less salvageable investments. To what extent and with what degree of expedition these investments may be liquidated depends upon questions of public policy as well as practical finance.

The most rigid economy in Government expenditure should be enforced, adequate revenue from taxes should be provided and rigorous salvage methods adopted with a view to the rapid retirement of the floating debt and of a portion of the Victory Loan before maturity. If due progress is thus made in reducing the floating debt, Victory Notes should be accepted at par in payment of the five income and profits tax installments falling due in the calendar year 1922 and the first quarter of the calendar year 1923; or if the notes are then selling at or above

par, a portion of them should be called for redemption in June and December, 1922. This would raise the level of all other Government securities and make possible the refunding of the reduced balance of the Victory Loan upon terms advantageous to the Government.

These measures are feasible and necessary. If, however, we reduce taxes, increase expenditures and delay salvage operations, the Government's financial predicament will be grave, for the debt outstanding and maturing within three years amounts to some $8,000,000,000.

The maturities and redemption dates of the Liberty Bonds and Victory Notes were arranged conveniently for the retirement of the public debt. The sinking fund will retire the entire funded war debt (over and above the amount of obligations of foreign governments held by the United States) within less than twenty-five years if, say, $1,250,000,000 a year is provided for the service of the debt, including interest and sinking fund.

II

The Treasury's Methods

The methods pursued for accomplishing these results were intended to and did hold the inevitable war inflation in this country down to a minimum. There are three ways of financing Government expenditures: taxes, loans and paper money. The last and worst of these methods was resorted to, to a greater or less extent, by all the European belligerents, and, to a disastrous extent, by some. It was avoided in the United States as a means of meeting the Government's war expenditures. The Government did not issue paper money; nor did it borrow directly from the Banks of issue except (a) temporary borrowings for a day or a few days at a time which were promptly repaid by withdrawals from depositary banks or out of tax receipts, and (b) certificates sold to Federal Reserve Banks under the Pittman Act as a basis for the issue of Federal Reserve Bank notes to replace silver withdrawn from circulation and sold to the British Government for India. There have been a few instances of purchases of Treasury certificates of public issues by one or more of the Federal Reserve Banks but these have been in such small amounts and of such brief duration as to be negligible.

Taxation. The Treasury persistently and, on the whole, successfully insisted that one-third of the current war expenditures should be met from current taxes. The effort to go further would probably have defeated itself and made the speeding up of production for the winning of the war impossible. When tax rates are low, the inequalities, injustices and economic injuries from errors in the incidence of taxation are slight enough; but as rates go higher their consequences become graver. The income of the business man in a period when the demand is for increased production ought to be turned back into his business. The income of the *rentier* ought to be taken up to the point where the most rigid economy in personal expenditures would be enforced. As a practical matter the distinction cannot be made, so we impose taxes as high as we dare upon both and seek to take the surplus income of the *rentier* by loans.

The first War Revenue Act became law on October 3, 1917, about six months after the declaration of war. Six months later it became apparent to the Treasury that war expenditures were mounting very rapidly and, immediately after the Third Liberty Loan the Treasury took steps to obtain additional revenue from taxation, demanding $8,000,000,000 in taxes against a rough estimate of $24,000,000,000 of expenditures. The proposal was resisted bitterly by leaders of both parties in Congress, who were anxious to adjourn for the summer and were looking forward to a general election in the fall. The issue was laid before the President, who, after careful consideration, sustained the Treasury and on May 27, 1918, delivered a special message to Congress demanding an increase of taxes. After months of delay the House passed a bill estimated to produce $8,000,000,000 of taxes, but this bill was still before the Senate Finance Committee when the armistice was signed. The Treasury, three days after armistice, reduced its estimates of expenditures for the fiscal year from $24,000,000,000 to $18,000,000,000 (a figure which proved to be correct within a few hundred millions of dollars) and advised the reduction of the taxes to be carried by the pending bill from $8,000,000,000 to $6,000,000,000 for the current year and $4,000,000,000 for subsequent years. These recommendations were ultimately adopted in the second War Revenue Act, which did not, however, become law until February 24, 1919.

The Treasury's tax policy measurably limited the inflation inevitably incident to the war. But we must not assume that to the full extent that Government expenditures are met from taxes inflation is avoided. There are good and bad taxes. Congress gave effect to the demands of the Treasury as to the amount of revenue required, but the House of Representatives and the Ways and Means Committee of that House are very jealous of the right and duty which they believe to be theirs to initiate revenue measures. The Treasury was consulted and given the most courteous consideration and the fullest opportunity to express its views, but the tax bills were written in Committee and the Treasury's views were overruled in many important instances.

The Treasury, though favoring and indeed urging the war profits tax as a tax upon profits roughly attributable to the war, strongly opposed the excess profits tax as a tax upon profits in excess of a given return upon invested capital. Experience has shown, what the Treasury always asserted, that the excess profits tax discourages initiative and enterprise, rewards overcapitalization and discourages conservatism in capitalization, confirms great corporations in their monopolies, encourages extravagance and wasteful management, and adds to the cost of living.

Similarly the Treasury advised against excessive rates of surtax and urged heavier rates of normal tax. Excessive surtaxes do not produce revenue but drive capital into the billions of exempt securities; and the manufacture of additional amounts of exempt securities is stimulated by the very existence of these high surtax rates. This encourages wasteful or deferable expenditure by States and municipalities at a time when the worldwide shortage of capital makes it urgently necessary that our capital resources be conserved for productive business. Graduated surtaxes are necessary and desirable socially, but, particularly where there exist billions of dollars of securities carrying exemption from these taxes, excessive surtax rates defeat their own ends and, in the last analysis, the burden is shifted to the community as a whole because of the consequent shortage of capital for useful and necessary purposes.

The departure from the Treasury's views concerning surtaxes and normal taxes has seriously impaired the market value of

Liberty Bonds, which are exempt from the normal taxes but, with certain exceptions and limitations, subject to surtaxes. It is within the power of Congress, by reducing surtaxes and increasing normal taxes, to lift Liberty Bonds to practically any market level it chooses.

In the last analysis, taxes can only be paid out of income, and the best tax is a properly graduated income tax. When a tax is imposed upon something else, or measured in some other way, the taxpayer who has not current income available must shift the burden to some one else. If possible he will shift it to the ultimate consumer. Capital taxes, including retroactive war profits taxes, and excessive surtaxes, excess profits taxes and sales taxes—all these must be shifted sooner or later—after much economic disorder in some cases—if possible to the consumer. Because the whole income of the poor man is spent on things he consumes, and the greater part of the income of the man of modest means but a neglible part of the income of the rich man, taxes of this sort are unjust and unnecessarily burdensome. There is an even greater evil in these indirect taxes and that lies in the fact that Congress is perpetually urged to make expenditures out of the public purse for the benefit of some class or group in the community. A system of indirect taxation makes it possible to conceal from the great mass of the voters upon whom the burdens fall the fact that they are being mulcted in order to confer special benefits upon a part of the community. The notion that in some mysterious way the other fellow will pay, the profiteer or the plutocrat,—or perhaps the general public without knowing it—leads to wasteful expenditure.

Thus the beneficent effects of the Treasury's policy, to pay as we go one-third of the war expenditures from taxes, were limited by the character of the taxes imposed. Inflation was avoided to an important extent because the spending power of the individual was curtailed and transferred to the Government without the issue by the Government of credit instruments. The full value, however, of these measures was not obtained because certain of the taxes imposed tended to dissipate or penalize capital and inflate prices.

Liberty Loans. When the war began the investment bankers of the country had, it is said, sold bonds of all kinds to some

four hundred thousand persons. The Treasury grappled with the problem of loans boldly, relying upon the patriotism and capacity for self-sacrifice of the American people; it devised a sound plan of decentralized organization for mobilizing the financial resources of the country; and it promptly drew into its headquarters staff experts from the business and financial world, who under the Secretary gave to the fine old Treasury organization the necessary leadership for solving the problems of the war.

The Sixty-fifth Congress convened on the 2nd of April, 1917, war was declared on the 6th, and the First Liberty Loan Act was approved on the 24th. It was the third Act passed by the Sixty-fifth Congress, being preceded only by two deficiency appropriation bills. Bankers differed in their opinions as to the amount of bonds which could be sold, some believing that the amount might run as high as $1,500,000,000, others that it must not exceed $500,000,000. The Treasury asked $2,000,000,000 and the loan was oversubscribed fifty per cent. The Treasury avoided conventional methods of bond selling, paid no commissions, employed the Federal Reserve Banks as fiscal agents, and called upon the leaders in the banking and business world in every community to form Liberty Loan Committees and lead the movement. In organization it pursued a policy of decentralization, vesting leadership in the Governors of the twelve Federal Reserve Banks and in committees appointed by them.

The First Liberty Loan not only filled the Treasury for the moment but it prepared the American people for the draft and made them realize the war. It taught millions of them what a bond is and how to save and pay for one.

Fom May, 1917, to May, 1919, the country was thrown by the Treasury every six months into the throes of a Liberty Loan campaign—five loan campaigns in two years. It is estimated that 20,000,000 people or more subscribed for some or all of the loans, and that 2,000,000 people took part as workers in one or all of the campaigns. During these two years, covering the whole period of our participation in the war and six months after the fighting stopped, no one in America was ever allowed to forget that there was a war, that he had a part in it, that that part included buying Liberty Bonds or Victory Notes, and that

to do it he must save money. In the history of finance no device was ever evolved so effective for procuring saving as the Liberty Loan campaigns. Every one was always buying a Liberty Bond or Victory Note, or trying to pay for one or getting ready to buy bonds or notes of the next issue. The First, Second, Third, Fourth and Victory Loan campaigns stand out in my mind as the most magnificent economic achievement of any people. For conception, direction and detail the Treasury is entitled to credit and must assume responsibility, but for the actual achievement of 100,000,000 united people inspired by the finest and purest patriotism no man or group of men could be so foolish as to imagine themselves responsible. Those Liberty Loans were the principal instrument in raising cash and getting the people to save for the war.

In fixing the terms of the loans the Treasury had always one major consideration in mind, and it perhaps accounts for some divergence of opinion between the Treasury and some of the bankers. It was not from a wilful desire to make the sale of bonds hard, but from a determination to finance the war so that it should never be lost for financial reasons, that the Treasury sold long bonds, and sold bonds at low rates of interest. There must never come an end of the war in defeat because of lack of foresight, lack of courage to take the first steps in a careful, thoughtful way, looking to the possibility of a long war. In addition to the effect of high rates of interest and short maturities in depreciating other securities and in causing apprehension as to the future, must be kept in mind the psychological effect at home and abroad.

As to maturity the experience of the Governments of the Allies showed conclusively the grave embarrassment which must confront any Government in the course of a long war which failed to place long-time bonds. The theory that short bonds would keep themselves at par has not been sustained in practice. Very much the highest interest bases have been established by the short bonds and notes of this and other governments. The explanation is simple. When bonds are sold, to the accompaniment of patriotic appeal, to an amount in excess of the normal investment demand, subscribers who have overbought sell first the bonds which they can sell with the least loss of principal. They do not bother much about the interest

basis. And permanent investors who do not expect to follow closely market fluctuations, in buying Government securities prefer a good return for a long period to a higher return for a short period.

Given the necessity of selling bonds of long maturity, it was undesirable to burden the country with a high interest rate for a long period of time with the moral certainty that very high interest rates would drive the bonds to a premium long before maturity. But above all, the Treasury must give ground slowly, remembering that the limit of the task was not in sight and that the credit of the Government of the United States was the last financial resource of the Allies. We were engaged in war, not conducting a commercial operation. Indeed there was no rate of interest which would float several billion dollars of Liberty Bonds or Notes as a commercial operation.

But the bankers differed as much with each other as with the Treasury, and I do not recall any instance when there was any considerable opinion in favor of a rate in respect to any Liberty issue more than one-quarter of one per cent higher than the rate actually adopted by the Treasury. A comparison of the present opinions of some financiers and publicists with those expressed during the war, and of record in the Treasury, would furnish amusing reading.

When the Treasury fixed the terms of the Victory Loan I was told by a banker, who is second to none as an expert in the distribution of securities, that they were unnecessarily attractive. A leading newspaper criticized the issue bitterly on the same ground. The attractiveness of the issue was proclaimed by the financiers of the country with such unanimity that serious apprehension was aroused lest the people at large should get the impression that the Victory Notes were so attractive that they might leave them safely to the bankers and business men and that no subscriptions involving self-denial on their part were necessary to assure the success of the loan. The head of the Publicity Bureau of the Liberty Loan Organization, after a tour of the country, told me that the Treasury had jeopardized the success of the loan and destroyed the patriotic appeal by offering notes upon such attractive terms. Federal Reserve authorities became very apprehensive lest the banking institutions of the country should subscribe heavily for their own ac-

count, and the Treasury and the Governors of the Federal Reserve Banks were hard put to it to prevent their doing so. Recently the 4¾% Victory Notes have sold on an interest basis as high as 6¼%.

The rates of interest determined upon by the Treasury were at the time fair rates for the Government to pay, having regard to the exemptions from taxation which the bonds and notes carry, their maturity and the purpose for which they were issued. No one could foresee the probable course of the market for the bonds and notes in the immediate future with any degree of confidence. A year ago it was freely predicted by financial authorities that Victory Notes would shortly go to a premium and that Liberty Bonds would be selling at or near par within a year or two.

Every one knows why these sanguine expectations have not been realized. With the armistice, and still more after the Victory Loan, our people underwent a great reaction. Those who had bought Liberty Bonds as a matter of patriotism, but not as investors, began to treat their bonds as so much spending money. Those who had obeyed the injunction to borrow and buy Liberty Bonds ignored the complementary injunction to save and pay for them. A $50 bond in the hands of a patriot turned spendthrift was to him a $50 bill to be spent Saturday night, or, to her, a new hat, and if the $50 bill turned out to be a $45 bill, small matter. This was the first and most immediate cause of the depreciation of Liberty Bonds, affecting them particularly. I shall mention later other conditions affecting the general situation and them incidentally.

I doubt whether higher rates of interest on Liberty Bonds, which would have meant more taxes for the taxpayer and more spending money for the bondholder, would have had any other effect than to increase the inflation which has been rampant since the Victory Loan.[1]

[1] "Some people argue that a low rate of interest makes people save more because it is necessary for them to save more in order to acquire independence. Others maintain that a high rate of interest induces people to save because they can see the direct advantage of doing so. Both these arguments are probably true in some cases. But, as a rule, people who have the instinct of saving will save, within certain limits, whatever the rate of interest may be. When the rate of interest is low they will certainly not reduce their saving because each hundred pounds that they put away brings

Some critics say that the Treasury should have foreseen the after-the-war reaction and, in order to protect bondholders from the consequences of their own acts, issued the bonds and notes at rates of interest which would insure a market price for them at or near par even in the period of reaction.[1] These were counsels of despair, inflationist doctrine and futile. The bonds and notes were never meant to be treated as spending money. The Civil War gave us our fill of interest-bearing currency. Depreciation in market price serves as a check upon those who wish to spend their bonds.

There was no plan of financing the war or of financing the period of readjustment which would protect the holders of the Government's securities or the Government's credit against subsequent folly and waste.

War Savings. The Liberty Loan campaigns were supplemented by the work of the War Savings Organization, which disseminated sound economic doctrine and produced about a billion dollars.

Treasury Certificates. By selling Treasury certificates in anticipation of each Liberty Loan and of income and profits tax installments the Treasury provided current funds to meet outgo, made provision against the money strain which would have been involved if Liberty Loan and tax installments had been paid on one or several days without anticipatory borrowing, and, more important in economic effect, tapped the credit

them in comparatively little, and when the rate of interest is high the attraction of the high rate will also deter them from diminishing the amount that they put aside."—Hartley Withers, *War-Time Financial Problems*, page 7.

[1] "If there is a great reaction, and everybody's one desire is to throw this nightmare of war off their chests and go back to the times as they were before it happened, then all that the war has taught us about the production of capital will have been wasted. But I rather doubt whether this will be so. Saving merely means the diversion of a certain proportion of the output of industry into the further equipment of industry. The war has taught us lessons which, if we use them aright, will help us to increase enormously the output of industry. . . . There is a further point, that the war has taught a great many people who never saved at all to save a good deal. . . . The war has shown us how we can, if we like, increase production, reduce consumption, and so have a larger margin than ever before to be put into providing capital for industry. Whether we really have learned these lessons and will apply them remains to be seen."—*Ibid.*, pp. 9-10.

resources of the banks and trust companies of the United States and mobilized them for the uses of the Government, thus limiting commercial inflation during the period when the Government was the principal buyer and needed to have the credit resources of the country placed at its disposal.

The Treasury issued as great and as frequent long loans as the market could absorb—in fact, greater and more frequent than the market could absorb. The point of saturation for long Government loans had been reached—and passed—with the Fourth Liberty Loan. Investors require diversification of their investments. In a little over two years we created $25,300,000,000 of debt (at the maximum). It was bad enough to ask the people to absorb that amount of the obligations of one Government. It would have been intolerable to insist upon their buying only bonds of one character, that, is, long-time bonds. After armistice the only way to get additional investment money into Government securities was to offer some diversification of terms and this was done by issuing Victory Notes and thereafter by revolving Treasury certificates.

The result of forcing out more long loans would have been the perpetuation of the war debt. There is no greater influence towards economy of expenditure and maintenance of adequate revenue than the existence of short dated debt. No Administration could have resisted the pressure for reduction of taxes and increase of expenditures if the war debt at its maximum of $25,300,000,000 had been funded, and it had subsequently appeared that taxes and salvage would more than meet current expenditure. The time to pay off a war debt is immediately after the war.[1]

During the war Treasury certificates were sold largely to banks in anticipation of loans and to taxpayers in anticipation of taxes. Since the Victory Loan campaign efforts to procure distribution of both tax and loan certificates among investors have been increased and marked success has attended them. The banking institutions of the country have been asked to buy the certificates and sell them to their customers, and their fine efforts to that end have been supplemented by the Treasury mailing circulars describing each issue of certificates to a

[1] *Report of the Committee on War Finance of the American Economic Association*, December, 1918, page 84.

selected list of taxpayers and bondholders of the United States. The success of these efforts is evidenced by the fact that on April 16, 1920, of $2,693,808,500 loan and tax certificates outstanding only $462,114,000 were pledged with Federal Reserve Banks as security for loans and discounts. In view of the fact that the Reserve Banks were maintaining a preferential rate for paper so secured, it is safe to assume that the remaining $2,-231,000,000 certificates were in the hands of investors, including banks which were not borrowers.

War Loan Deposits. Technically the Treasury's special depositary system is one of the most interesting, as it is one of the most valuable, devices for financing the war. Our problems were different from those of European countries. We had to deal with some thirty thousand independent banks and trust companies scattered all over the United States. The device of "payment by credit" was worked out in connection with the First Liberty Loan at a Sunday conference in May, 1917, between representatives of the Treasury, of the Federal Reserve Board and of the New York Liberty Loan Committee. Unchanged in principle from that day to this, but simplified and perfected in the course of three years, it served to weld together and mobilize for war the banking resources of the United States, including in the Government's depositary banking system ten thousand of the thirty thousand banking institutions of the country.

"Payment by credit" is a device for permitting the banking institutions which purchase Government securities to defer payment for them until the Government actually needs the money. It was adopted to prevent money stringency. It developed the further advantage that in the difference between the rate borne by the securities and the rate charged on the deposit, banks found some compensation for their time, trouble and the loss of deposits resulting from the sale of securities to investors. If, instead of permitting the banks to make payment by credit, the Treasury had required them to make payment in cash and held the cash, it is apparent that the operation simply could not have been carried out. A very modest increase in the balances in Treasury offices involves money strain. The attempt to make payment into Treasury offices in cash on one day of the proceeds of the smallest war issue of Treasury certificates—not

to mention a Liberty Loan or tax payment—would have created a panic. Bankers and the public have become so accustomed to the ease and smoothness with which Treasury operations are conducted that they take them for granted; yet two years ago the business and banking community was in an uproar because of the fear of money strain in connection with the first great income and profits tax payment—a strain which never occurred because the Treasury's arrangements to deal with the situation were so complete.

"Payment by credit" was well calculated to limit inflation incidental to war borrowing. If, instead of permitting the banks to make payment by credit, the Treasury had required them to make payment in cash and had then redeposited the proceeds, to the extent that it did not require to make immediate use of them, it would have pursued a course more likely to create inflation. If the Government were to draw into the Reserve Banks and the Treasury offices cash in excess of its current requirements, the first effect would be to make money very tight and increase money rates, with consequent interference with the Government's financial operations. The second effect would be heavy discounts by the Reserve Banks to meet the demands so artifically created. Discounts so made would be for periods from one to ninety days. Upon the redeposit of the proceeds of certificates depositary banks would be put in possession of loanable funds.

It was better to make one bite of the cherry and to avoid the money strain and inflation which would have been inevitable if the money had been first drawn out of the banks and then redeposited with them.

In order to sell Liberty Bonds and Victory Notes it was necessary to give subscribers the option of making immediate payment in full or of making payment in installments over a period of months. This injected an element of great uncertainty into the Treasury's calculations. It was quite impossible precisely to anticipate receipts under these circumstances. As a matter of fact the privilege of making payment in full on the opening day was largely availed of and the Government's balances were consequently swollen until certificates of indebtedness issued in anticipation of the loan matured or could be called for earlier redemption. Redemptions were made as promptly as possible,

but the operations were on so huge a scale that it was a matter of two weeks after a loan-payment date before the Treasury could obtain really reliable information as to the amount of the payment.

The same principle (payment by credit) was employed in handling the great tax payment in June, 1918, (which was only about half covered by anticipatory borrowing) although not called by that name and modified necessarily in detail. Checks received, drawn on qualified depositary banks, were forwarded to them and the amount credited by them in the War Loan Deposit account. This was done instead of collecting the checks and redepositing the proceeds. Subsequent income and profits tax installments have been covered by anticipatory tax certificates.

A similar problem, though not of such great dimensions, presents itself in connection with the current routine business of the Government under war and armistice conditions. The ideal thing would be to have the Government's receipts precisely equal its expenditures from day to day. That ideal, however, being impossible of attainment, the Treasury has consistently pursued the policy of borrowing sufficiently in advance to meet its requirements, without direct borrowing from the Federal Reserve Banks. The Treasury plans to sell certificates to an amount sufficient to cover the estimated requirements for some three weeks in advance. This is a small margin of safety in view of the impossibility of estimating closely. It is physically impossible to issue Treasury certificates more frequently than every two weeks and it takes ordinarily two weeks from the date of the offering of an issue of Treasury certificates to the date of closing the issue for the ascertainment of its results. Sometimes it happens that the Treasury miscalculates its cash requirements and borrows in excess of the amount which turns out to be actually necessary at the time. That happened last September. Sometimes it underestimates its requirements. That happened only last month. Indeed, it is very much more difficult to gauge the current income and outgo now than it was during the period of active warfare. Expenditures increased at the rate of about $100,000,000 a month pretty regularly during the war. The physical limitations upon production and transportation prevented expendi-

tures increasing by leaps and bounds—imposed a certain sobriety upon them. There has been no similar brake upon the decrease since the armistice. In consequence of settlements of contracts and sales of accumulated stores, receipts and expenditures have jumped about in such a way as to make them utterly impossible of calculation. The Treasury has no control over the expenditures or salvage operations of other departments.

A depositary bank, when it makes a "payment by credit," does not put itself in possession of loanable funds. What actually happens is that the bank becomes possessed of an asset, to wit, Treasury certificates and is charged with a liability, to wit, an entry in the Government's war-loan deposit account. It does not have any money to lend or spend until it sells the certificates or borrows on them. Like most human devices, payment by credit may be subject to abuse as, for instance, by the application of the proceeds of sale or borrowings on the certificates to other purposes than meeting the Government's calls, but the Governors of the Federal Reserve Banks, under the wise guidance of the Federal Reserve Board, have been alert to prevent such abuse.

The view that bank deposits are potential currency [1] is inapplicable to the deposits created in the Government's war loan account. No checks are ever drawn upon or charged against the Government's war-loan deposit account with depositary banks. Remittances are made by them to Reserve Banks on receipt of letters or telegrams. The number and amount of United States Government disbursing officers' checks outstanding or in process of collection at any given moment of time is not affected by the amount of the Government's deposits in depositary banks. The Treasury has no control over the drawing of these checks and the credit of the Government of the United States has at all times been sufficient to float them regardless of its bank balances. These checks have involved

[1] "As many people may be puzzled by the assertion that the Government increases the currency by borrowing from banks, it is better to explain the process briefly here, though in another book I have already shown how loans made by banks produce manufactured money by adding to the banks' deposits, which embody the right of their customers to draw the cheques which are the chief form of currency that we now use." — Hartley Withers, *Our Money and the State*, page 61.

an important expansion of currency (treating checks as currency). The Treasurer of the United States handled as many as 300,000 checks in one day during the war. He is now handling something like 80,000 checks a day. The Treasury has struggled to keep enough money in the bank to meet these checks as they come in, but the checks have been floated not on the faith of its bank deposits but on the general credit of the United States Government.

Collateral Agencies. During the war many collateral agencies were created to conserve and mobilize the resources of the country and limit the inflation of prices and the expansion of currency and credit. Some were initiated by, others were quite independent of, though acting in coöperation with, the Treasury. The Capital Issues Committee discouraged issues for non-essential purposes. The Subcommittee on Money of the New York Liberty Loan Committee fixed the price of call money and rationed credit to the stock market. The Division of Foreign Exchange of the Federal Reserve Board licensed imports and exports of gold, silver and capital. The War Trade Board licensed imports and exports of commodities. The War Industries Board fixed prices and priorities for commodities. The Shipping Board, the Food and Fuel Administrations and the Railroad Administration, were all parts of a comprehensive plan for mobilizing the resources of the country.

It was impossible to rely upon prices and rates to prevent inflation at a time when the first duty was the winning of the war. When the Government requires the services, the wealth, the productive capacity of all the people for the purposes of a great war it must practically go through a process of condemnation and pay a price determined by properly designated functionaries. The laws of supply and demand cannot be allowed to function in war times so as to permit some of the people to extort from all of the people, represented by their Government waging a righteous war, prices, whether for commodities or credit, based upon the fact that the supply is very limited and the demand for all practical purposes unlimited.

When the fighting was over most of these controls were broken down one by one as rapidly as seemed possible, with a view to restoring natural conditions.

III

Inflation

Before the War. Before we entered the war we had what, for lack of a better short description, may be called, though inaccurately, gold inflation.

During the War. Currency expansion, as distinguished from credit expansion, has been very moderate in this country.[1] The Treasury has not manufactured currency at all. It has not manufactured credit directly with the banks of issue. It has limited the expansion of credit as far as practicable. The expansion of currency and credit which has taken place has been the result not of Treasury methods of financing the war but of the unlimited buying power of the Government of the United States when supported by the devotion of the people. Government expenditures and commitments were the cause of price inflation, rather than the methods which the Treasury employed to meet those expenditures. Expenditures and commitments always outran the provision made for them by the Treasury, whether in cash or credit. Government contracts covered future production for months or years ahead, but the Treasury never during the whole period of the war had provided money or bank credit sufficient to meet its requirements for more than a few weeks ahead. Prices rose in response to the effective demand of the United States Government sustained by the general credit which its resources and taxing power and the devotion of one hundred million people gave it. They were influenced by two conflicting forces, the desire of the Government to stimulate production and the desire of the Government to prevent profiteering. The expansion of currency and bank credit, which followed the Government's expenditures and commitments, sustained and distributed the price inflation. In much of the discussion of currency and credit inflation and their relation to price inflation insufficient attention has been given to the practical difference between private operations, on the one hand, and those of a government in war time, on the other. A government in war time, may,

[1] Letter of Governor Harding to the Chairman of the Banking and Currency Committee, United States Senate, dated August 8, 1919. *Federal Reserve Bulletin* for August, 1919.

to an extent private operations cannot, upset the balance between the supply and demand for commodities without first obtaining currency or bank credit.

The cost of living here has increased less than in any of the belligerent countries (including Japan [1] which assumed no ap-

[1] Japan has a bank rate above eight per cent. *Commercial and Financial Chronicle,* April 24, 1920, p. 1699. Her inflation is a gold inflation.

"The cost of living has advanced threefold more than before the war. . . . The gold holdings of Japan have now reached the unprecedented total of 1,899,000,000 yen, of which 1,061,000,000 yen belongs to the Government and 838,000,000 yen to the Bank of Japan. Of this large sum only 545,000,000 yen is in Japan, 1,354,000,000 yen being invested or deposited in England and the United States."—*Economist,* January 3, 1920, pages 19-20.

"The abnormal inflation of currency not only keeps up prices, but is lending impetus to speculative fever, which now knows no bounds. Investments in new enterprises between January and October this year amounted to no less than 2,859,000,000 yen, or more than for the whole of last year, when investments totalled 2,676,000,000 yen; and the expansion of capital is now such that the authorities can no longer regard the situation as wholesome. Banks have been officially instructed to restrict loans, and to preach economy and caution, but speculation continues rife. It is frequently reported that officials are interested in speculation, and that that is one reason why no control is exercised over note inflation. The same thing went on after the war with Russia, but it was followed by panic and numerous business failures, leading to prolonged business depression.

"The effect on industry and society is far-reaching and disaffecting. Many enterprises, such as weaving and shipping, continue to pay enormous dividends, though most of the mushroom enterprises can hardly pay their way. Industry is marked by increasing unrest, with frequent strikes for higher wages and shorter hours. Of late the greater part of this unrest has been in shipyards and mines. At one of the copper mines recently the troops had to be called out to put down violence when 6,000 miners began to take matters into their own hands. This is the first time in the industrial history of Japan that troops have had to be called out to deal with strikes. The cotton mills, which are paying such big dividends, being manned mainly by women, have labour in their own hands, and so far they experience no labour unrest. In most cases mill work, so far as women go, is little less than a form of slavery, as the girls are not free to leave when they wish, and seldom get away until invalided out. On the other hand, the luxury and extravagance of the profiteers and the newly rich tend to demoralize society, and cause revulsion of the poor against the rich. The most prosperous concerns in cities are the restaurants, houses of questionable pleasure, and the dealers in jewellery and expensive ornaments. The wealthy are buying up whole lots of houses, and pulling them down to erect grand mansions with spacious gardens for themselves, to the great resentment of the poor, who cannot find dwelling accommodation. A great part of big cities like Tokyo is taken up with these gardens of the privileged and the wealthy, while

preciable part in the financial burden of the war) or in the neutral countries of Europe.[1] This was in no small measure due to Treasury methods of financing the war.

Since Armistice Day. Since armistice day the world has not only failed to make progress towards the restoration of healthy economic life, but in fact has receded farther from a sound position. We have failed to restore peace and peace conditions in Europe, and in America unsound economic ideas have in many instances prevailed and the effort is being made, first here then there, to improve the condition of some of the people at the expense of all of the people.

Inflation here since armistice day is attributable to three principal causes; (a) World inflation and the internationalization of prices; (b) Heavy expenditures by our Government and government interference with business; (c) Reaction and waste among our own people.

(a) For five years the world has been consuming more than it produced, living upon its capital, and the governments of the world have been issuing evidences of indebtedness to represent the wealth destroyed. This has caused world inflation of prices.

The inflation which has taken place here since armistice seems attributable in no small degree to the inflation of the continental European currencies operating upon the optimism of the American people. Our enormous export balance has been financed by forced credits to Europe which, because of the necessary gold embargoes, cannot be liquidated in the ordinary way.

People have been led to believe that there is a mystery about foreign exchange and that in some way America is at fault for not protecting the European exchanges from depreciation. In war time the measures taken by the belligerent nations in respect to international trade and finance were more or less complete. Embargoes on the export or import of gold were accompanied by embargoes on the export and import of commodities, by domestic price-fixing, by fixing the price of money,

space for common dwellings is at a premium, the poor being driven into the slums. This leads to social disaffection and encourages Socialism.''—*Economist,* February 7, 1920, page 263.

1 *British White Paper* (Cmd.) 434, 1919, Statements of Production, Price Movements and Currency Expansion in certain countries.

by control over capital issues, by control over foreign exchange and by Government loans in foreign countries. These controls probably should not have been removed where the gold embargoes were to be retained; for the gold held in Europe has been made a basis for further inflation there and the ever-expanding European currencies have been sold for dollars to be used to purchase here and elsewhere things not needed as well as those needed. The depreciated price at which European currencies are taken in consequence of these methods means for them a rapidly increasing foreign debt which will make the ultimate resumption of a gold basis more difficult.

Our own prices are being inflated and our own banking and currency position expanded by the feverish speculation in European currencies, credits and securities, including those of countries with which we are still technically in a state of war.

In the present position of the international balances and of the foreign exchanges and because of gold embargoes Federal Reserve Bank rates cannot function internationally, and operate solely upon the domestic situation.

(b) Government expenditure is at the root of inflation all over the world. Wise methods of meeting it may mitigate the inflation, but they cannot prevent it.

The Government of the United States has been slow to realize upon its salvageable war assets and to cut down expenditures growing out of the war.

While Congress deliberated, the Government held control of the railroad systems of the country for a year and a quarter after fighting stopped, and furnished transportation at less than cost. Then Congress ordered the railroads returned to their owners with a new expenditure of $1,000,000,000 by the Government for their account and the deferment for years of the $1,000,000,000 the railroads owe the Government.[1]

[1] The actual cash expenditures of the Railroad Administration for the six months ending June 30, 1918, were $120,000,000, for the fiscal year ending June 30, 1919, were $359,000,000, and from July 1 to March 31, 1920, were $776,000,000, a total of $1,255,000,000. The recent legislation and that now pending make specific appropriations to the amount of $800,000,000 and indefinite appropriations (including a guaranty to short-line railroads which were not taken over by the Government) which will involve expenditures to the estimated amount of $300,000,000. It is safe to say that the Government's expenditures and losses on account of the railroads and its investments in the railroads will shortly amount to $2,350,000,000.

The interference of Government in railroad affairs, begun many years before we entered the war, has subjected business and industry to the gravest hardships for lack of adequate transportation and has involved a great additional strain upon our credit facilities. You can fix the price of capital but you cannot make it work for that price. You can fix the price of labor but you cannot make it work for that price. By holding down rates for the shipper, the railroads have been kept so poor that neither capital not labor will work for them. The shipper has cheap rates but he cannot get transportation. The producer has to borrow because he cannot have his goods brought to market; the consumer has to pay higher prices because he cannot get the goods. Here there is double inflation. Cheap rates increase the demand for transportation and decrease the supply of it.

If the railroads had been allowed to charge reasonable rates, the Government would have lost nothing in their operation, and it would not have been obliged to invest so much money in them for, given reasonable rates, they could have obtained capital through private channels.[1]

The United States Shipping Board expended in the fiscal year 1917, $14,000,000, in the fiscal year 1918, $771,000,000, in the fiscal year 1919, $1,820,000,000 and in the fiscal year 1920 (to March 31, 1920), $433,000,000, a total of $3,038,680,338.79 to which should be added about $176,000,000 expended from the proceeds of operation and sale of ships. The actual cash expenditures since armistice day amounted to approximately $1,600,000,000, while Congress deliberated as to our shipping policy. Notwithstanding the fact that it has been engaged in commercial shipping at a time when it is exceptionally profitable, the Shipping Board has made as yet no net return to the Treasury, its expenditures still exceeding and absorbing its receipts.

Five billion dollars spent or invested in railroads and ships, the larger part of it after the fighting was over! Why are the railroads being run today at a loss at the Government's expense? To what end are we moving in our shipping policy?

[1] The Transportation Act of 1920 appears to offer no permanent relief from the grave situation resulting from our insufficient transportation facilities, for it indicates that the railroads are entitled to earn 5½ or 6 per cent when new money is costing those in the highest credit 7 or 7½ per cent.

Instead of telling the people frankly and boldly that prices are high because they are wasting, we fix prices and prosecute profiteers, in order that the people may buy more and pay less.

Instead of telling the people that Liberty Bonds have depreciated because they are treating their Liberty Bonds as spending money, we clamor that the rate of interest upon the bonds is too low and urge a bonus to bondholders disguised as a refunding operation.

Instead of telling the more thoughtless of the young men who were selected to fight the war, and who came back better and stronger and more fit to fight their own battles than they ever were before, to go to work and save their money and look out for themselves as their fellows are doing and as any self-respecting man should, we listen complacently to the organized demands of some of them for a bonus, euphemistically called "adjusted compensation."

Penny-wise and pound-foolish, we leave the executive departments underpaid, and undermanned, as regards supervisory employees. While Congress struggles to effect economies at the expense of efficient administration of the Government, it takes time to add $65,000,000 to Civil War pensions.

From November, 1918, to March, 1921, nearly two years and a half, the first two years and a half after fighting stopped and probably the most critical two years and a half in the world's history, the Government of the United States is deadlocked against itself, a Government by obstruction. It is at least questionable whether the progress of reaction would have been so complete or so disastrous if our institutions had not given this country, during the most critical period of the world's history, a Government divided against itself, and therefore incapable of effective leadership in national or international affairs.

(c) At this most critical moment in the history of Europe, when our own financial and economic stake in Europe's affairs is so great that disaster there could mean only disaster here, many of our own people have turned gamblers and wasters. For plain living and high thinking we have substituted wasting and bickering. We enjoy high living while we grumble at the high cost of living—of silk stockings and shirts for the poor, of motors for men of small means, of palaces for the profiteer and the plutocrat.

Unhealthily stimulated, commercial business appears to prosper and commercial expansion proceeds unchecked. From March, 1919, to March, 1920, though holdings of and loans upon Government war securities of all reporting member banks of the Federal Reserve System (about eight hundred member banks in leading cities believed to control about forty per cent of the commercial bank deposits of the country) decreased from $4,000,000,000 to something over $2,000,000,000, their other loans and investments increased from $10,000,000,000 to over $14,000,000,000. For every dollar of credit released by the Government, two dollars were extorted by business. Reporting member banks' loans on miscellaneous stocks and bonds, included in their "other loans and investments," amount to $3,000,000,000, or one and a half times their investments in and loans upon United States war securities. From May 2, 1919, to March 19, 1920, though the Reserve banks reduced their loans and discounts upon Government war securities from $1,800,000,000 to $1,400,000,000, they increased their other loans and discounts from $350,000,000 to $1,400,000,000.[1] Evidently a very small proportion of the Reserve Banks' present loans and discounts are "war paper," though half of them are collaterally secured by United States Government war securities because of the wise policy of maintaining rates differentiated according to the character of the security.

High rates of interest and discount, limitations of currency and credit, these and all other traditional methods should be used, and used courageously; but they will not suffice under the abnormal world conditions now prevailing.

1 On the other hand, though Federal Reserve Banks' loans and discounts secured by Government war obligations rose from about $250,000,000 at the end of 1917 to a high of over $1,800,000,000 in May, 1919, their other loans and investments never during the war rose above about $850,000,000 (in November, 1918) and were down as low as about $350,000,000 in May, 1919. All reporting member banks' holdings of and loans upon United States war securities increased from a low of about $1,250,000,000 in December, 1917, to a high of about $4,000,000,000 in May, 1919. Their other loans and investments increased from about $9,500,000,000 in December, 1917, to a high, for the war period, of about $10,750,000,000 in August, 1918, and contracted to less than $10,000,000,000 in March, 1919. A smaller number of banks (about 630 controlling about 35% of the commercial bank deposits of the country) were reporting in December, 1917.

IV

Remedies

We must get together, stop bickering and face the critical situation which confronts the world as we should a foreign war. We must recognize our responsibility to, and our stake in, Europe, and in one way or another lend her our moral support and leadership and economic assistance, but without Government loans. We must cut Government expenditure to the quick, adjure bonuses, and realize promptly upon all saleable war assets, including ships, applying the proceeds to the war debt. We must have a National budget with teeth in it, which means among other things that no appropriation shall be made by Congress without a critical examination and report on ways and means by the Treasury, representing the financial end of the executive branch of the Government, and the Ways and Means Committee of the House and the Finance Committee of the Senate, representing the financial end of the legislative branch. We must promptly revise our tax laws to make them more equitable and less burdensome without reducing the revenue. We must restore the railroads to a self-supporting basis by establishing rates which will insure a return for capital and labor commensurate with the return to be had elsewhere at a time when there is a world-wide shortage of both. And, above all, we must work and save. We must produce more but, more important still, we must consume less.